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Richard Roberts, F.R.C.V.S.

It is our misfortune to have to announce the death of another leading practitioner. Mr. Richard Roberts, of Tunbridge Wells, succumbed to an attack of *Angina* on the 5th inst. Although the end came unexpectedly Mr. Roberts has suffered more than one attack. So late as April 30th he wrote a cheerful letter hoping to be able to attend a meeting of the South Eastern V.M.S. which was fixed for May 7th. At that meeting a vote of sympathy and condolence with the family was passed, and it was pleasant to hear man after man rise to express his regret, and bear testimony to the grand character of the deceased.

Mr. Roberts graduated from the New Veterinary College, Edinburgh, in 1875, and started practice in Kendal. From there he moved to Liverpool, and later settled at Tunbridge Wells, where he made a very extensive practice. His professional skill and his pleasant manner gave him a firm grip of his clients, who soon became his friends. Between him and his veterinary neighbours there was no trace of any feeling save that of good comradeship. He had during his career many pupils and assistants, and these men see a practitioner more intimately than anyone else. Mr. Roberts' pupils all speak in the highest terms of his kindness of heart and his constant attempts to help and guide them. He did good without stint, and his left hand knew not what his right did.

Although a very busy practitioner Mr. Roberts kept up to the times, and was always interested in his profession scientifically, socially, and politically. In 1893 he took the Fellowship, and in 1910 became a member of Council. This year he was a Vice-president of the R.C.V.S. He was a member of the National Veterinary Association, and a regular attendant at their annual meetings. At the Brighton meeting he was President, and the success that attended it was largely due to the labour and tact he put into his office. He was a member of one or two local societies, and wherever he went he instilled some of his energy and good nature into his colleagues. Perhaps one of his greatest claims to professional recognition is the impetus he gave to the use of anæsthetics in veterinary practice. So far back as the time when he was at Kendal he used chloroform largely, and was, we think, the first to use and recommend its administration standing. He also used a muzzle, and almost anticipated the form now known as Carlisle's.

Mr. Roberts looked forward to the meeting of the International Veterinary Congress in 1914, and was one of the few able and willing to give a donation of £100.

Richard Roberts will not soon be forgotten by his profession and the widest sympathy with his family will come from all his friends. Mr. Chas. Roberts, his son, will continue the practice.

THE INTERNATIONAL VETERINARY CONGRESS.

Last week we printed a subscription list forwarded by Mr. Garnett, which showed how generously some of our members are supporting this fund. At the same time there are indications of increasing Continental activity with regard to the Congress. The Permanent Committee of the Congress, as a "measure of propaganda," has recommended the formation in all countries of National Committees to work for the success of next year's gathering in London. In conformity with this, Belgium has already formed a small but strong National Committee, constituted as follows: M.M. Degive, late Director of the Veterinary School, Dupuis (present Director of the School); Stubbe, Inspector-General to the Ministry of the Interior; De Roo, Chief Inspector to the Ministry of Agriculture; Léonard, Chief Veterinary Surgeon of the Army; and Eraers, chief editor of *L'Echo Vétérinaire*.

Of course these National committees will have nothing to do with the raising of funds for the Congress. That responsibility rests upon this country alone. The new foreign committees will exist for the purpose of arousing interest in the Congress amongst the veterinary surgeons of their respective countries, with the ultimate object of inducing as many as possible to visit London next year. Undoubtedly their efforts will meet with some success—perhaps with a great deal. It seems quite likely, then, that the Congress—which already promised to be the largest ever held—may be even larger than we had expected. That will mean increased expense; and the moral for us is clear.

FRACTURE IN UTERO.

On the morning of the 12th inst. I was called to deliver a foal from a light farm mare. The head and left fore leg were already exposed on my arrival, and I had little difficulty in delivering a filly foal which was just dead. On examination of the foal I found the right fore leg, which was the cause of the obstruction to foaling, as shown in photograph.

The large metacarpal bone had evidently been fractured some time ago, and the fracture had fairly well healed up, with the ends of the bone crossed and protruding outside the skin, which has also well healed as can be seen in photo.

The shaft of the bone has become perfectly solid in the bent position. There is a history of the mare having been found down with colic three months ago, and a further history of her receiving a kick when ploughing five weeks ago. It is likely the fracture occurred on either of those occasions. The case occurred in the practice of Mr. P. J. Howard and as I have never seen or heard of such lesion, I think facts and photo may be interesting.

SAMUEL H. POWER.

CLINICAL CASES.

By James Gregg, m.r.c.v.s., Belfast.

Bleeding from Bladder.

A brown Irish harness gelding had been in regular work for ten years. Four weeks ago he was wheeler in a drag to a race meeting, 15 miles distant. Next morning a little blood was noticed coming away with the water. The blood was more plentiful on the following day, and was bright arterial clotted blood, and was not mixed with the urine, but came away after it had been passed—we computed that he passed on the average two quarts of blood per day for eleven days. He ate well and remained in good health, but on the ninth day he was obviously weak—the membranes were bloodless and the tongue clammy. When noticed, he got an oleaginous purge, followed by linseed and bran mashes, with occasional hypodermic injections of ergotine,

The day following the injection the blood was a little less, but it was invariably followed by flooding the next night.

On the eighth day I consulted my friend, Mr. J. J. Ross, who suggested sulphate of iron, a drug which he had found very beneficial in dairy cows who gave bloody milk. Two drachms were given in bolus night and morning. For first 24 hours after administration the emissions of blood were greater than ever, but from that point until the eleventh day the blood got gradually less, then it stopped completely, and has not appeared since (two weeks).

The horse seems to be putting on condition abnormally fast. Has bleeding usually this effect? It used to be so said.

Cats Poisoned with Carbon mon-oxide.

Some time ago I was called to attend two valuable Siamese cats for a lady; there had been five, but three had succumbed during the night in a mysterious way. I found that the patients were housed in a small greenhouse, which was heated with an oil stove—on examination of the stove, I found combustion imperfect. Post-mortem examination gave the orange scarlet blood (seen in C O poisoning in human subject). The two surviving cats died during the next 48 hours.

Yorkshire Puppy with Bone in Throat.

A chop bone as large as a Bantam egg could be felt in the Œsophagus, just at the entrance into the chest; it had been in this position for four days, a surgeon elsewhere having refused to operate. Cocaine and Adrenaline (Burroughs and Wellcome) was injected into the part, and after the usual antiseptic precaution, the bone was caught between the finger and thumb, and a bold incision made right into it—the bone being pulled out with forceps; it seemed to have worked great havoc in the Œsophagus. After its removal the puppy got great relief, and soon became quite frisky. No sutures were used—while the animal was feeding an attendant held the lips of the wound together. In a week it was almost completely closed and the cure was perfect in two weeks. I record this as an example of the recuperative power inherent in all young things. Another example, a puppy (collie) swallowed a ladies' hat pin, with a knob on it about the size of a hazelnut, head foremost. It became quite rigid and was unable to walk. Examination showed something projecting at the angle of the jaw, this was cut down into, and immediately the point of the pin popped out—this was caught with forceps and pulled with considerable pressure until the hat pin was removed. When out, it was the exact same length as the patient. The recovery was uninterrupted and complete.

ABSTRACTS FROM FOREIGN JOURNALS.

A Case of Equine Tuberculosis.

Mogwitz records (*Zeitschr. f. Veterinärk*) the following case of a four-year-old mare. The animal first showed the symptoms of a chronic intestinal catarrh, which gradually grew worse. The general condition fell off greatly, and colicky symptoms and attacks of diarrhœa set in. The conjunctival membranes were dirty-white. The pulse was sometimes almost imperceptible, the cardiac pulsations were violent, and were greatly accelerated by the least movement. The animal showed pain upon pressure of the abdominal walls. The rectal temperature fluctuated between 100·4° F. and 104° F. The animal spent very much time lying down, and finally died.

The post-mortem examination resulted as follows. When the animal was skinned, the cutaneous vessels appeared completely bloodless. The carcase was almost devoid of fat, only a trace remaining. The peritoneal cavity contained from four to five litres (roughly from seven to nine pints) of serum. The peritoneum was studded with uneven wart-like nodules ranging from the size of a lentil to that of a pigeon's egg and lying close together. The small intestine was totally empty and collapsed. The wall of the ileum showed callosity-like thickenings up to two centimetres (= 4-5th inch) in diameter, and the mucous membrane, especially in the vicinity of the cæcum, showed considerable ulceration. The colon was scarcely recognisable as such. In many places there were adhesions between the parallel columns of the viscus, and the lumen scarcely permitted the passage of a finger. The mucous membrane of this part of the intestine was studded with ulcers ranging from the size of a sixpence to that of a shilling, and resembling the ulcers seen in swine fever. The rectum showed similar lesions. The mesenteric lymphatic glands were enlarged to the size of a fist, and were grey-red and very juicy. The portal lymphatic glands were double the size of the fist. The liver contained many nodules up to the size of a chestnut, which were lobulated in their structure, and contained a crumbly yellow-white mass in their interiors. Similar nodules, up to the size of a pea, were found in the spleen, which was not sensibly enlarged. The interior of these latter

nodules was greasy in its consistence. The kidneys and the thoracic organs showed no morbid lesions.

The diagnosis of tuberculosis of the peritoneum, intestine, liver, and spleen was tested and established at the University of Breslau.

It is interesting to note that, when a foal, this mare had been looked after by an attendant who was suffering from tuberculosis, and who ejected much sputa. Mogwitz supposes that the equine tuberculosis arose from tuberculous material from this attendant, which infected the foal by the digestive tract.—(*Münchener Tier. Woch.*)

Renal Calculus in a Horse.

Külper reports (*Zeitschr. f. Veterinark.*) the case of a horse, eighteen years old, which for some weeks had undergone a striking falling off in condition, but had shown no special symptoms of illness. Having regard to the age and poor condition of the animal, the owner decided upon slaughter.

Post-mortem, it was found that the left kidney was bean-shaped in outline, and showed a bulging. It felt very hard; and pressure upon it caused distinct crunching sounds from its interior. It was about six inches long, 5 1-5th inches broad, and 2 4-5th inches high. Its weight slightly exceeded 1½ lbs. Its colour was pale red. The knife could only penetrate about 1-5th inch within it, and then encountered a hard resistence.

When the kidney was opened, it was found that its functional parenchyma had completely disappeared. The kidney itself was reduced to a connective tissue capsule about 1-5th inch thick. This enclosed a calculus, brown in colour, of an irregular pear-like shape, fairly smooth upon its surface, and rather over seven ounces in weight. The surface of the stone was enveloped by a soft chalky mass, in which smaller stones (together weighing ʒv.) were found imbedded. The soft chalky mass weighed about seven ounces.

When the large calculus was sawn through, its cut surface showed a stratified lamellar structure. The single lamellæ were very hard, and crumbly, gravel-like masses of chalk were interspersed between them. The right kidney was markedly hypertrophied.—(*Münchener Tier. Woch.*)

Badly-Cooked Rice as a Cause of Pruritis and Intestinal Catarrh in Dogs.

Rexilius records (*Zeitschr. f. Veterinärk.*) an outbreak of this nature observed by him, A pack of hounds belonging to a regiment showed violent and constant pruritis, the dogs rubbing and scratching themselves incessantly. The ischial regions and the inner surfaces of the thighs became bare, and in many places bleeding. The animals also showed more or less violent diarrhœa and gradually became emaciated; some individuals died.

When the cause of the condition was sought for, neither vegetable nor animal parasites could be found in the skin. Rexilius then turned his attention to the diet of the dogs. He found that they had been fed mainly upon rice cooked in water, and had only now and then received some milk, dog biscuits, and kitchen refuse. At the time of the examination they were receiving rice exclusively; and this had been only imperfectly cooked—in fact, only "half done." The dogs took this food unwillingly; and the greater part of it had to be removed next morning, after it had already become sour.

Suspicion then arose that the pruritis and diarrhœa had been caused by eating the imperfectly cooked sour rice. This suspicion was confirmed. When the feeding was altered, and the rice was well cooked, and given along with milk and dog biscuits, the condition of the animals improved visibly, without medicinal treatment of the skin and intestines being applied. The pruritis soon ceased, the wounds which had been caused by scratching and rubbing healed, the diarrhœic fæces became normal, and the general condition of the animals improved from day to day.

It was thus proved that the illness had been caused solely by the defective nutrition and careless preparation of the food.—(*Münchener Tier. Woch.*)

The Action of Yohimbin.

Becker, of Kiel, records (*Illustrierten landwirtschaftl. Zeitung*) the following observation. A Danish stallion, the produce of a half-brother and sister, was a very bad stockgetter, impregnating only an exceedingly small percentage of the mares he covered. Petersen, a veterinary surgeon, examined the animal's semen, and found that it was remarkably thin and watery. Microscopical examination failed to reveal spermatozoa. Afterwards two other veterinary surgeons examined the semen, and found it to possess the same physical characters that Petersen had observed; while repeated microscopical examinations by them also failed to discover spermatozoa. The veterinary surgeons declared the stallion sterile.

The attempt was now made to influence the seminal secretion by means of yohimbin. A solution of 2 grammes of yohimbin in 750 grammes of water was prepared, and at first the horse received a tablespoonful of this three times daily. After the first quantity of the solution had been used, Petersen found that the horse was more ardent in covering and discharged a great quantity of semen. The semen was now again microscopically examined, and was found to be thick in consistence; it also contained numerous spermatozoa, and thus showed the properties of normal testicular fluid. Treatment by yohimbin was continued. After and during the administration of yohimbin the horse covered twenty mares, and sixteen of these (representing 80 per cent.) were impregnated.

Becker concludes that in this case the yohimbin exercised a direct influence upon the power of procreation.—(*Münchener Tier. Woch.*)

The Action of Sennatin.

Credé, a physician, and Dietrich, a chemist, have produced a fluid extract of senna leaves, which contains all the active substances of the leaves, while excluding the non-essential and irritating ones. The preparation is called *sennatin*, and

is a clear, stable, sterile fluid, thin enough to be suitable for subcutaneous and intra muscular administration.

In Credé's hands the drug has answered very well when used as a subcutaneous and intra muscular purgative in 300 cases of constipation of the most varied kinds, including intestinal paralysis and meteorism. Sennatin is absolutely non-poisonous. It stimulates the intestinal movements in all cases so powerfully that violent expulsions of intestinal gases result, and that in all cases, through stimulation of the large intestine, evacuation of fæces is effected, provided too great mechanical obstacles are not present.

Credé has tested sennatin in different classes of cases which had the common feature of depression or arrest of the action of the intestine. The cases included children from two years old, and old men. The normal dose of sennatin for adults is 2 grammes. For subcutaneous injection a portion of skin with very loose subcutaneous connective tissue is chosen. Intra muscular injection is carried out upon the external parts of the muscles of the buttocks. The cost of an injection is only threepence.

Experiments with this drug upon the smaller veterinary patients, especially dogs, are desirable. The drug might be especially indicated in cases in which, on account of peritonitis or from other causes—such as laparotomy—the administration of purgatives by the mouth is impracticable.—(*Münchener Tier. Woch.*)

W. R. C.

CONTAGIOUS ABORTION.

Sir John M'Fadyean, on Friday night, at Knutsford, addressed a large body of farmers and members of the profession on the interesting subject of "Contagious Abortion." The address was given under the auspices of the Mid-Cheshire Farmers' Association, with Mr. Geo. Norris Midwood, the president, in the chair, supported by Sir Gilbert Greenall, Bart., the hon. director of the "Royal" and a personal friend of Sir John.

The profession was represented by Messrs. J. H. Wright, M.R.C.V.S.; G. H. Stent, M.R.C.V.S.; G. H. Locke, M.R.C.V.S.; A. Taylor, F.R.C.V.S.; A. Lawson, M.R.C.V.S.; A. Darwell, M.R.C.V.S.; A. Marshall, M.R.C.V.S.; J. B. Wolstenholme, F.R.C.V.S.: T. Eastwood, F.R.C.V.S.; J. W. Brittlebank, M.R.C.V.S., D.V.S.

Sir JOHN, who was well received, said he had agreed to speak on the subject of abortion, and his object must be to tell them in as plain language as he could command what was the present state of the knowledge and opinion with regard to this important disease. It was not always easy to distinguish between knowledge and opinion, but as far as possible he would try to show them what appeared to be well-established fact and what appeared to be only opinion.

There was no occasion for him to apologise for having selected as his subject abortion, because the losses which were occasioned to farmers by abortion were certainly very serious. If the experience of people in that part of the country agreed with the general experience, there must be some in the audience who had suffered considerable loss from the disease. Abortion in its widest sense was a very wide subject, far too wide for any one to propose to deal with in a single address and except for an incidental reference to abortion in cows, he desired to deal with a particular abortion in cows.

If a disease was to be intelligently and scientifically dealt with, the first point to determine with regard to it was the cause of it. In the past there had been a good deal of discussion and difference of opinion as to what was the cause of abortion in cows. Cows, like other animals, abort from various causes, but a great many of the causes that were occasionally in operation could be ruled out as not affording an explanation of abortion which was serious and had caused ruinous loss in a herd.

One knew that in any pregnant animal there were a number of things that might cause premature expulsion of the young. A pregnant cow or other animal if reduced to a condition of extreme poverty was an instance where parturition might occur prematurely. Still there was a wide experience to show that an animal might be in a condition of extreme poverty and yet carry the young to the full term. One also knew that the serious illness of a pregnant animal, from any cause whatever, might lead to abortion. Mechanical injury was recognised as a cause of abortion, and it was also very generally believed that severe fright was a cause—fright apart from mechanical injury. His own opinion was that although in the human subject, where the nervous system was more highly developed, fright was occasionally the cause of abortion, it was very rarely the cause of abortion in any of the lower animals. Then poisons of different kinds had also to be recognised as occasionally being the cause. Any poisons which made the pregnant animal seriously ill and threatened its own life might kill the fœtus which the animal was carrying, and therefore cause abortion, and particular mention must be made of ergot, because for a very long time many people supposed they could find in ergot grasses an explanation of the widespread serious abortion. Improper diet had also been accused as a cause of abortion. Inbreeding of animals and even domestication had also been regarded as a possible cause.

While one might admit that all the things he had mentioned were capable of causing abortion, it might be said of the whole of them that they were seldom or never the cause of more than occasional cases of abortion, and that really they had no interest when one was trying to discover what was the cause of the multiple cases of abortion that occurred in herds, not only in England but wherever cattle are bred in large numbers.

Of course, when a man had an outbreak of abortion and he had read nothing about it before, and had not discussed it, it was quite possible for him to fix upon some particular circumstance or condition in connection with his own herd that was unusual and come to the conclusion that possibly that was the cause of the abortion. But mistakes of that sort were avoided when one collected all the available information there was about abortion as it occurred in a large number of herds, and it was when one did that that one very soon arrived at the conclusion that none of the things he had mentioned, nor the whole of them taken in combination, could be regarded as explaining the occurrence of the serious widespread outbreaks of abortion.

There was one other alleged cause of abortion, namely the suggestion that cows sometimes abort in what was vaguely known as sympathy. The suggestion was that when a pregnant cow witnessed or was conscious of the fact that another cow was calving, the pregnant cow was incited to cast her young prematurely; but the evidence did not support this theory. The true cause of the widespread plague-like abortion was contagion. Although it had only recently become generally accepted that the disease was contagious, it was by no means a new belief or opinion as regards abortion. More than a hundred of years ago there were far-seeing intelligent writers and stock owners who suggested that the facts

could only be explained on the view that abortion was the result of a contagious disease.

In certain contagious diseases the observed facts were convincing to everybody that contagion was actually in operation. For instance, it was by bacterial investigation or experiment that one came to admit that smallpox in man was a contagious disease. The observed facts were perfectly conclusive, but what might be called the clinical evidence, evidence derived from mere observation, was not sufficient to prove there was such a thing as contagious abortion. As a matter of fact, the question would have still been in doubt had it not been for the evidence produced by experiments.

As long ago as 1875 the Highland and Agricultural Society of Scotland took the matter up. They were pressed to do so because of the very serious losses which the disease was occasioning in Scotland, and Sir John was a member of the committee appointed to investigate. A number of experiments were carried out on a small scale, and proceeding on the assumption that the disease might be contagious, they tried to transmit it experimentally. They got cows that had aborted and they tried to infect the healthy pregnant cows by using materials from the former. They also tried similar experiments with sheep, and in a considerable proportion the results went to show that they could transmit the disease experimentally.

The next great advance in knowledge was made some years later by Professor Bang, the great veterinary authority in Denmark. He tackled the subject in a very acute manner, and he was the first to show that when a cow was killed before the act of abortion, there was tangible disease in the animal's womb and in the membranes surrounding the calf. Comparatively gross alterations were present in that position. He also was the first to discover that in the diseased lining membrane of the womb and in the membranes of the calf the abnormal material there present contained bacteria, usually in immense numbers. That was a very important discovery, but it was very far from affording proof of the contagion of the disease. He went further, and found that the bacteria present in the diseased womb could be cultivated out of the body in the laboratory, in artificial substances. He could get, so to speak, crops of bacteria to experiment with, and he proceeded to test the bacteria which he had cultivated artificially on pregnant cows and other animals; introducing bacteria into the animal system generally by injection into the blood stream, and generally by injection into the genital passages, and sometimes into the mouth. In a large proportion of experiments of that nature he found that the animals into which he had introduced bacteria actually aborted, and that the same diseased conditions were present inside the womb, and the same bacteria were present there. In short, he showed he had come into possession of something which he could multiply in his laboratory and by which he could cause practically as many cases of abortion as he liked.

And from the time these facts became known to veterinary surgeons there really was not left in their minds any doubt that the previous mystery as to the cause of widespread abortion in cows had been solved. Since that time the knowledge provided by Professor Bang had been considerably extended. Although a number of important points still remained to be elucidated it appeared to be established that abortion was a contagious disease by bacteria which had such special characters that they could easily be identified.

But one wanted to know a good deal more about a contagious disease before one was able to tackle it in an intelligent manner. In the first place one must regard the cow infected with the disease as a sort of breeding station for the germs which caused the disease. It was inside the womb that the bacteria increased enormously, but one wished to know how the bacteria lived outside the body of the cow which had aborted, because, obviously, as long as they were imprisoned in the cow infected there was no danger to the other animals in contact with them. At the present time one could not say with any pretence to certainty that when a cow was infected some bacteria might not at any time during the course of pregnancy leave the animal, but there were very good grounds for believing that the escape of bacteria from infected cows, if it occurred at all, was very slight, or negligible, until the animal was actually aborting, or just before.

It was capable of demonstration that when an infected cow did abort, a perfectly colossal number of the germs of abortion were passed into the outer world. Sometimes they came away a little before the fœtus, immense numbers of them escaped with the calf itself, and then they continued to go away for some days, possibly for some weeks or months afterwards; but the great source of contamination was just during the act of abortion, or during the next day or two.

Then the next question which one had to consider was—given this escape of these dangerous bacteria from an infected animal, how did they enter the bodies of healthy animals in order to propagate the disease? And it was about this preliminary point that there had been a very important change of opinion during the last two or three years, largely, as the result of investigations carried out by a Departmental Committee appointed by the President of the Board of Agriculture and Fisheries. Professor Bang was of opinion that cows were usually infected by the bacteria finding admission to the genital passages, and he supposed that probably this usually was when the cow was lying down in a shippon in which a case of abortion had occurred. That opinion was very generally accepted, and on it there was based an attempt to check the spread of abortion by frequently disinfecting the hind quarters of cows and the floor of the shippon generally. That of course was not the only precaution, because it was perfectly obvious that the first thing to do by way of prevention was to see that when a case of abortion did occur, the risk was minimised as far as possible by having the cow taken away, the fœtus destroyed, followed by cleansing with copious applications of disinfectants. But in spite of that, cows frequently got contaminated in the way he had mentioned.

Professor Bang also succeeded in infecting cows by the mouth, causing them to swallow the germs, but he (Sir John) believed he was right in saying that Professor Bang did not suppose that that was the common method of infection. As a result of experiments carried out by the Departmental Committee the members came to the conclusion, and Sir John confidently shared the opinion, that the common method by which cows got the infection of abortion was by swallowing bacteria. It was rather an uncomfortable conclusion to come to, because it was really more difficult to counteract this method of infection than infection by way of the genital passages; but he thought that one must now really assume that in the great majority of cases in which the cow had become infected with this disease she had actually swallowed the bacteria. However well managed a shippon might be it was practically impossible to prevent any dirt or discharge from getting on the food of the animals.

Sir John did not wish to be understood as saying that cows were not infected by the genital passages in lying down, and he did not wish to belittle the importance of frequent disinfection of the channel behind the cow, but he was perfectly satisfied in his own mind that only a very small proportion of cows became infected in that way. Sponging the hind quarters with a disinfectant or even the injection of a disinfectant into the genital organs with a view to preventing the spread of

the disease was very nearly useless, and was probably just about as effective as if one tried to prevent the spread of glanders by sponging the horse's nose with carbolic acid.

There was still another way in which the disease was sometimes spread, though there was still some room for difference of opinion, namely through the medium of the bull. The opinion was very widely held that the bull was an important factor in the spread of contagious abortion, and given the facts he had already mentioned, one could see that there was a clear possibility that a bull might spread the disease without himself being infected with the disease. If a cow which had aborted and which came into service and still had got some of the germs of bacteria in her genital passage, and if the bull was frequently serving cows, it was quite clear that on the penis he might mechanically transfer the germs to the healthy cow which he next served. And this must continue to be regarded as one of the ways in which abortion was spread. There were some whose opinion was entitled to a good deal of weight who thought that was the common way in which the disease was spread. With that opinion Sir John was unable to agree. In his opinion the common method was by the mouth.

Passing to deal with another point—one upon which evidence had only been recently obtained—there were outbreaks of abortion in which the possibility of contagion having been introduced was not at all clear; in fact the circumstances were sometimes such as to exclude the possibility of contagion. He had known cases in which a lot of heifers served for the first time by a bull used for the first time had had occurring amongst them an outbreak of abortion. The heifers from the time of service to the time when the abortion broke out had not been in contact with cows.

That at first sight seemed to rule out contagion unless one admitted the possibility that in the past there might have been infected cows on the pasture and these had left the bacilli. That possibility one could not deny, but it was far from probable. But the occurrence of such cases suggested the question whether, after all, since this was a bacterial, disease whether it was not necessary that an animal should be pregnant before it could be infected, and also suggested whether it was possible that male animals as well as female animals could become infected. Well, that question had been settled by experiments quite recently. He had himself found, using the cultivated germ of the disease, that one could infect calves of either sex with contagious abortion. It is true that just as in the case of pregnant cows, the infected young stock did not become visibly ill, but there were other methods by which they could prove that as a result of the injection of the infection of bacilli they had actually become infected.

The experiments which he had carried out during the last twelve months had also satisfied him, not only that a bull could be the mechanical carrier of the germs of contagious abortion from cow to cow, but that a bull could be actually infected with contagious abortion by the introduction of the germs of the disease inside his sheath. Nothing beyond the bare fact that this was possible had been established, but, as they saw, it opened up rather serious possibilities.

He did not propose to say much about the symptoms of this particular disease. One of the striking features was that in spite of the serious disease as revealed at the post-mortem examination of the womb, the infected cow showed no symptoms of illness whatever. It did not appreciably rise in temperature, maintained its appetite, did not lose condition, and it was also a remarkable fact that the abortion which was induced by the disease of the womb was usually affected with far greater disease than was abortion which followed an injury to the cow, or which was induced by some other disease. In a sense it was unfortunate that this particular disease had no other symptom than abortion, because that made it exceedingly difficult to recognise an affected animal.

Now he came to the very important question as to how this very formidable disease might best be tackled with a view to prevention. There was no doubt whatever that a germ was the actual cause of abortion, and the cow might be regarded as a sort of breeding station for the bacteria, but the important point about which one desired information was, Is there any other place in which the germ of abortion could multiply? Even the man in the street knew that germs were of common occurrence in the outer world—in soil and water—and while most of these were harmless there were some capable of causing serious disease, and which maintained their power of multiplication in soil, water or dirt. One wanted to know whether that was possible in the case of the abortion bacteria, because if that was so the disease might arise apart from contagion. It would not be right to say that it had been absolutely proved that the bacilli of abortion never multiplied anywhere except in the body of a diseased animal, but it was justifiable to say that there was an exceedingly strong probability that the germ never did multiply except in the body of a diseased animal, and therefore if they could shield the healthy stocks from contact with the affected animals, or cut off the possibility of the germ from a previously diseased animal being introduced into the healthy stock, then the healthy stock would remain permanently healthy as regards this disease.

After having taken the evidence of representatives of agricultural and breeding societies throughout the country, the Departmental Committee made certain recommendations to the effect that abortion in cows should be made a notifiable disease, and that when a case of contagious abortion was ascertained, certain restrictions should be put upon the movement of pregnant animals from that particular herd. The majority of the witnesses who gave evidence were in favour of such action, but he would not venture an opinion as to whether agriculturists generally would welcome legislation or the passing of an order of that sort. There could be no doubt that such an order would be in the interests of those who at the present time had herds free from the disease, but of course it would not be in the interests of those who had diseased stocks

In the past it had been almost impossible for a farmer who was not breeding his own animals to insure himself against the introduction of the disease, because in practice it was frequently impossible for the purchaser to get a trustworthy history of the animal he was buying. He had on many occasions to buy an animal on trust, and the danger of the introduction of the disease had been greatly increased owing to the fact that although an animal might be seriously affected at the time of purchase it was impossible to recognise the affection by the most expert examination.

One of the important things he had got to tell that meeting was that there was now known a method by which one could diagnose this disease with almost infallible certainty. In the immense majority of cases it was possible by the test that he had in his mind to detect whether an animal was infected or not. In other words, given any case of this disease or any case of abortion, it was possible to determine with practical certainty whether the abortion was due to one of those incidential causes to which he had referred in his opening remarks, or to this particular disease. And that, they would admit, was a very valuable discovery; it opened up a hope that one might be far more conclusive in the future in dealing with the disease than anyone had a right to expect comparatively recently.

This test is carried out by taking out a small quantity of blood from the suspected animal, allowing it to clot,

then squeezing out the clear liquid, called serum. This mixed along with some of the bacteria which cause the disease, would furnish definite results. If the serum came from a diseased animal then it acted on the bacteria in a way which became perfectly obvious in the test tube to the naked eye. If the abortion was of any other sort, or the animal was not infected, then no such effect was produced on the bacteria. He was not saying that that was the only method of diagnosing abortion, because when one had the material which had come away with the calf, the disease could be diagnosed by microscopical examination.

The theoretical method by which every farmer could protect himself against the disease would be—when he bought an animal to recruit his stock, whether the animal was a heifer or a bull, for a period of two or three weeks, isolate it and have the blood tested in the way described; if the test exonerated the animal then admit it to the stock.

But there was also the question as to how the disease might be got rid of from a herd in which it already existed. In such a case one should take out of the shippon any animal that threatened to abort and isolate it, and if it had actually aborted it must be removed and cleansed and the calf destroyed, and thorough disinfection practised. There was an immense amount of experience to show that a man might do that and yet fail to arrest the disease, because unless one was standing day and night watching the cows it was not possible always to know that an animal was going to abort until the animal actually aborted and then the mischief was serious.

The test he had referred to was capable of yielding very good results in attempting to suppress an outbreak that had actually begun. Theoretically, the proper method of dealing with an outbreak of abortion would be to remove the animals that had already aborted and isolate them and practise disinfection, and then to apply the test to all the remaining animals, at any rate to all the pregnant animals. This had already been done in a considerable number of herds and sometimes it had rather surprising results. By this method one could find out in the course of a day or two which of the remaining pregnant animals were already affected, and of course that was the absolutely necessary step to the elimination of the disease from a herd.

One result of the application of the test to different herds had been to show what was strongly suspected before—that not every pregnant animal that became infected with the disease actually aborted. That, again, was rather an unfortunate circumstance, because it meant that a very considerable danger might be overlooked. The cow had gone to nine months, and the owner himself thinking there was no danger attaching to the animal, it might honestly be sold—and then carry the disease into a new herd.

The question of whether it was possible to treat the animal medicinally—whether there was any known medicine that could be relied upon to cure, was often asked by the layman. His own firm conviction was that there was no such remedy known. He was well acquainted with the things that had been vaunted as specifics for abortion, but in so far as the thing was not a fraud it rested upon a misunderstanding, the misunderstanding being of this nature.—Although the disease was a contagious one, it was not one which ordinarily went on appearing over a long period of years in the same herd. The explanation was that when a cow had suffered from the disease and had aborted she became immune. She got entirely rid of the germs of the disease, and could be exposed to contact with infected animals afterwards without contracting the disease.

Another point was that a good many animals contracted the disease and did not abort at all, and these animals also had got immunity. When the disease was allowed to run its natural course in a herd *into which a considerable number of new animals was not brought every year*, after a course of years all the animals in that herd were immune. He mentioned this to show how fallacious it was to say because they had treated a case with carbolic acid, and the disease gradually died out, that the credit was due to carbolic acid.

His opinion that animals that had recovered from the disease became immune, raised the question of the vaccination of animals. That, of course, was in the air. The Principal Officer to the Board of Agriculture had, for a year or two, been trying on a pretty large scale in some parts of the country, whether one could intervene successfully in the case of an outbreak by vaccination of the animals. He merely mentioned the fact because there had not been published any statistics as to what was the real value of the point. (Applause).

A number of questions were asked and satisfactorily answered by Sir John. In reply to Mr. J. P. Bancroft, he emphasised the fact that when a cow had aborted it was afterwards immune, but whether immune or not it had nothing to do with the question whether she would spread the disease. There were exceptional cases where a cow aborted twice and thrice.

Mr. C. BURGESS asked if the test mentioned by Sir John was an expensive one for farmers. He had never heard of it before.

Sir JOHN replied that the Mid-Cheshire Farmers' Association were getting about the first information on on the subject—(Hear, hear)—but he confidently hoped a good deal would be heard in the near future.

In answer to Mr. Walkden, Sir John said if an animal was all right and had no discharge, it might be put to service three months after abortion. But he did not know definitely.

Sir JOHN agreed with Dr. Young, the principal of the Cheshire Agricultural College, that a possible source of infection was the use of the same implements for bedding and manure and food for the cow.

Mr. BRITTLEBANK, M.R.C.V.S. Manchester, said one's experience confirmed the view that Sir John had spoken from facts and not from laboratory theories. There was the extraordinary fact which one had seen, and which Sir John had explained, that the abortion bacilli was in all their farm animals. One had seen abortion in the mare, or in a lot of mares on a farm where there had been no abortion amongst cows. On the other hand, at a period of the season like that, one saw on a number of farms where there was contagious abortion amongst cows, yet no abortion amongst sheep. Whether the period of frequency had something to do with it he did not know, but it seemed to him that some of the farms must be grossly infected, and it was very extraordinary that a large percentage of animals had aborted from contagious disease, and yet they had an absolutely clean bill in regard to all their other stock. It had occurred to him that if the Mid-Cheshire Farmers' Association could take the matter up, a great deal of material could be placed in the hands of Sir John, and a very great number of tests could be carried out in Cheshire with considerable advantage.

Sir JOHN said it was a well-established fact that mares and sheep were susceptible to contagious abortion, and could be experimentally infected with it, but so far as he was aware, in no single instance in Europe or anywhere else had a mare or a sheep been found to be naturally affected with this disease. When the disease was spreading amongst cows, there ought to be some opportunity for it to spread to other animals on the farm, but the very fact that it did not, seemed to him one of the proofs that the disease was rarely contracted at grass. If the danger was as great in the fields as in the shippon, then the mares and the ewes would contract the disease.

As to the Association taking the matter up, so as to carry out some of the suggestions he had made, any such steps would have his full approval. It was his intention to try to induce the Royal Agricultural Society to take the matter up.

Mr. FODEN DEAN said his experience was that cows aborted when they were going dry.

Sir JOHN agreed. That was perhaps the sixth or seventh month, but in reality a cow could abort at any period of pregnancy.

On the motion of Mr. Lawson, seconded by Mr. Darwell, and supported by Mr. Marshall, Sir John was cordially thanked for the address.

The CHAIRMAN said Sir John had told them that the "Royal" was going to take the matter up. It was an open secret, and Sir Gilbert told him that he would do all he possibly could to see it was taken up in the proper way. (Hear, hear).

The vote of thanks to Sir John was carried with musical honours, and in reply, he confessed that he had never had a vote of thanks awarded to him in that way before.

CENTRAL VETERINARY SOCIETY.

ECZEMA IN THE DOG.*

By F. W. CHAMBERLAIN, M.R.C.V.S., Wimbledon.

Gentlemen,—A little while ago I, as many others have done, acceded in a weak moment to the importunities of our energetic Secretary and promised to compile an essay, read and defend it before the members of our Society. After a little thought I selected the subject "Eczema in the Dog," because of its everyday occurrence in one's practice. Friedberger and Fröhner estimate that 8 per cent. of all dogs suffer therefrom. From the point of view of a general practitioner, I should say that that is quite a modest computation. The disease is really astonishingly common in the dog, and would in no small measure appear to be a true evil of domestication. Now, from the very start, in dealing with this somewhat complex subject, I would disclaim any idea of being didactic in this contribution. I submit this thesis not "as one having authority" but rather "as one of the scribes."

In their compilation, "Veterinary Pathology," Friedberger and Fröhner opine that breeds especially prone to the disease are Pugs, Fox-terriers, Danes, and Mastiffs. I do not know whether your experience in this matter will coincide with me, but I should say that if there is one breed more susceptible to eczema than another it is the Scottish Terrier—whether Aberdeen or Highland. Most frequently, in this breed the disease runs a chronic course attended by occasional exacerbations.

Perhaps a definition of eczema should come next. "A catarrhal inflammation of the skin characterised in some stage of its evolution by serous exudation." By "catarrhal" all that is implied is that an essential feature in the process is an exudation of serum either on the surface of the inflamed skin or into its deeper parts where the horny layer prevents the fluid from escaping. Clinically, eczema manifests itself as an eruptive dermatitis. There appears, however, to be something more in eczema than a mere inflammation of the skin due to a local and transient cause. There would appear to be some unknown quantity beyond this—a pathological *X*, which may be either some invisible source of irritation or some constitutional peculiarity, susceptibility, or diathesis. To quote the words of Cadiot: "At the beginning of any summary of the conditions favourable to the outbreak of eczema must be mentioned that important idea that eczematous eruptions are often subordinate to a constitutional condition or diathesis; in the case of young dogs to a lymphatic temperament, in adults and the aged to a gouty diathesis, to obesity, and sometimes diabetes." "This general condition largely determines the occurrence of the disease and demands special treatment." "In certain subjects it produces disturbance in the functions of the stomach, intestine and liver, mal-assimilation accompanied by auto-intoxication." "Conditions which favour the development of eczema render it liable to appear under the influence of trifling causes and may even constitute the primary factor" (Cadiot). If we adopt this hypothesis then we arrive at this conclusion. That there are two main factors in the production of eczema.

(1) Predisposition or special irritability of the skin.

(2) An exciting influence which brings this irritability into play.

In a very few cases, perhaps, there may be an actual pre-existing morbid condition of the skin which predisposes. Eczema in man is often associated, I believe, with a very dry skin. The condition is known technically as *Xeroderma*—"a dry and parched state of the skin occasioned by abnormal diminution of the secretion of the sebiparous organs." "In its severest forms it constitutes Ichthyosis or fish-skin disease" (*Hoblyn's Medical Dictionary*). One often sees a canine patient with a dry and particularly scurfy skin. I often wonder whether the condition is chronic squamous eczema or xeroderma. It seems to me that at the arrival of an attack of acute eczema in such a patient some might declare it to be an exacerbation following on a chronic scaly eczema, while others would claim it as an acute attack consequent on a pre-disposing xeroderma or dry skin.

Per contra, in man, again, there is *Sweat-eczema* in skins whose sudoriparous glands are over-active. Excessive secretion of sweat without any alteration in the character of that fluid may prepare the way for eczema by so modifying the condition of the skin as to make it prone to become the seat of eczematous processes. The most common situations for the development of this form of eczema in man are the parts where two opposed surfaces of skin rub against each other—between scrotum and thigh, in the axilla, *between the toes*. The sweat in such parts is apt to undergo decomposition, and this fluid together with shreds of macerated epithelium and dust forms a substance highly irritating to the skin. I have italicised the words "between the toes," because the region of the pad is of especial interest to us in the dog, that being the area where sweat-glands abound. Eczema of the pad is, you will agree, extremely common. I am strongly of opinion that the actual irritant exciting the dermatitis is in most cases such an irritant as "tar paving," now so ubiquitous, and that the predisposing cause is the sweating between the toes. This you will see brings in the subject of *Interdigital cysts*—so-called, I have always considered these to be directly associated with eczema. In most cases I think the term Interdigital Cyst to be a misnomer. In a large proportion of cases I think the real condition is Suppurating dermatitis of the paw complicated with sinus formation—uncommonly difficult to cure.

Now leaving out the question of predisposing skin—abnormalities entirely, and, if you please, possessing doubts as to the existence of what some might term this somewhat mythical diathesis, we must admit that there are other factors to come under the heading of agents predisposing to the dermatitis of eczema. I will include intestinal parasites (we well know the sympathy between the digestive organs and the skin), digestive disorders generally, plethora, and last but not least, unsuitable feeding. On the score of diet, many people seem totally oblivious of the fact that the dog is a carnivorous

* Read at the meeting at Red Lion Square, London, W.C., on Thursday, May 1st.

animal—a flesh-eater by nature, and endowed with those formidable carnassial teeth adapted for the crushing of bones. It is their custom to feed a dog almost entirely on carbo-hydrates—biscuits. The animal is not living in its natural wild state, we know, and domestication may in great measure call for a modified diet. Every dog, however, is the better for a certain amount of flesh-feeding. I am aware that the average dog-biscuit contains meat of a kind, and that there are some reliable brands on the market. On the other hand probably the vast majority are not reliable. One has only to break in two enough biscuits of many of the brands and examine the broken surfaces to form some idea of their nutritive value. You may find particles of meat, but in what condition? Many of the biscuits are greenish on section, and I have a suspicion that tallow is an ingredient in some.

Now as to the exciting influence which, added to these predisposing causes, acts as the actual irritant cause of the dermatitis. In many cases dirt, fleas, repeated friction (of a collar, say), strong soaps, *e.g.*, soft soap with abundance of free alkali, are to blame. Seawater will often suffice. I am sure that anyone with a seaside dog practice will concur with me. The hot rays of the sun during a "heat wave" will often suffice. In the house-dog, to my mind, the commonest cause by far is the acquisition of the "fireside habit."

Now, undoubtedly eczema is usually set up as the result of some direct irritation acting on the skin, but the whole process cannot be dismissed in this summary sentence. With the removal of the cause the effect would follow. The effect of such irritants is to set up a simple dermatitis. There can be little doubt that there is an additional irritant which transforms a simple dermatitis into eczema—the "last straw"—the action of micro-organisms. The skin has an abundant microbic flora of its own; under normal conditions these organisms do no harm, but it is easy to understand how the lesions produced by previous disease (dermatitis) may make the integument more vulnerable to their attack. Eczematous patches exhibit a complex flora of micrococci and bacteria whose *rôle* in the pathogeny of outbreaks is still, perhaps, undetermined. The microbes which multiply on eczematous spots are not without influence on the courses and changes of the disease; they aggravate acute eczema, and partly contribute to the obstinacy of chronic forms. At the Fourth International Congress, held in Paris in 1900, Unna, a well-known specialist in dermatology, summed up the conclusions to which his researches had led him in the following propositions:—

"The uncertainty which exists concerning the pathogenic agent of eczema is due in great measure to the absence of precise knowledge as to the various forms of cocci-micro-organisms presenting the closest similarity in appearance possessing widely different pathogenic properties."

"In eczema numerous micro-organisms are present and among them are several which when re-inoculated reproduce the disease."

Other scientists have reported the results of bacteriological examinations made by them in cases of acute eczema. In early and uncomplicated lesions they found cocci producing whitish cultures, all of them examples of the *Staphylococcus pyogenes albus*. They expressed the opinion that in all probability there are many factors at work in the production of eczema, and although they do not think this organism is the cause of the disease, they cannot help considering that this white coccus and other cocci, *e.g.*, the *Staphylococcus pyogenes aureus* and the *Streptococcus pyogenes* which are so often present in the later stages of the disease, must have very important influences on the development of the malady. The local infectivity and chronicity of eczema, the ease with which purulent manifestations occur should in all probability be ascribed to the presence of such bacteria. This was in 1900. I believe the trend of opinion is the same to-day, though, as a Scotch jury would say, the case is "not proven." It seems impossible to believe that parasites known to possess definite pathogenic properties can be present in such numbers, as they have been proved to be by competent observers, without having a considerable effect on the character and severity of the disease.

Further, there is the evidence of transmission by inoculation to be emphasised. Eczema spreads, it will be gathered, by auto-inoculation. While we are prone to dismiss it summarily as "non-contagious" there would appear to be a possibility of its being wrongly classified, though, of course, it is only transmissible by inoculation. At the same time it has occurred to me that a suckling bitch can infect her whelps. I shall be glad to hear your opinions on this point.

Eczema is essentially a polymorphous affection. Erasmus Wilson described a number of different forms of eczema:—erythematous, vesicular, papular, pustular, squamous, etc. All these, however, are but different stages of the same process, and there is no advantage here in considering them separately, although the terms are sometimes of use in practice to indicate the predominant type of lesion in a given case at a given time.

The terms acute or chronic indicate a greater or less intensity of the inflammatory process at a given time. The worst forms are ordinarily accompanied by some constitutional disturbance not amounting to fever, and the same thing occurs at each exacerbation. The general health, however, is seldom appreciably affected except when the itching is so intense as to interfere with sleep. This subjective symptom—itching—varies with the temperament of the patient. Lesions which in a placid lymphatic animal cause only slight annoyance would drive a neurotic animal frantic. Nor is the irritation always proportionate to the glaring character of the lesions. It is often very marked in erythematous eczema (eczema rubrum—the atrociously named "Red mange" so common about the elbows, thighs, and chest). In such cases the exudation inseparable from eczema appears to be imprisoned under the horny layer of the epidermis, and presses on or irritates the terminal filaments of the sensory nerves of the skin, and the relief afforded by free scarification of the parts with the toe-nails seems to confirm this view.

I will not labour on the symptoms of eczema. In an acute attack there are of course the classical stages—erythema, papule, vesicle weeping, pustule, scaly stage. In a bad case possibly all or most of these stages can be observed on the animal at one time. After the scaly stage we pass on to resolution, or to the chronic scaly eczema already mentioned. Chronic eczema most commonly affects the back and the region of the olecranon and calcis. It is attended by thickening of the skin, cracking of its surface, bristling and breaking of the hair, extreme sensitiveness of the skin owing, no doubt, to disturbance of innervation, and the slightest accidental irritation brings on an attack. Acute attacks supervene under the slightest provocation. Of course, eczema in certain positions involves special symptoms. Eruptions on the eyelids cause marked swelling, depilation, and conjunctivitis with abundant discharge, which causes the eyelids to adhere, particularly in the mornings. Acute eczema of the ear produces offensive discharge. The inflammation of the scrotum is aggravated by intertrigo. Eczema of the ground surface of the foot causes lameness; so may that of the interdigital spaces. One of the most troublesome conditions met with in dog practices is chronic eczema of the auditory meatus, which involves ulceration and hypertrophy of the papillæ, and vegetations which entirely obstruct the passage. These cases appear to be hopeless. Cleansing and dressing the ear is impracticable.

Differential Diagnosis.

Distinguished from mange by the absence of the acarus or demodex. From skin distemper by the very small size of the eczema vesicle. That of skin distemper is very broad comparatively, and flattened. Prognosis: Recurrence the rule rather than the exception.

Treatment.

Before discussing medicaments, we may recall some of the predisposing and actually exciting factors in the dermatitis. Thus, regular and suitable feeding, regular action of the bowels, attention to intestinal worms if present, the avoidance of irritant soaps, and of soap and water generally, as far as possible. If at the seaside, prohibit the animals entering the sea. Keep the dog away from the fireside.

A lowering diet is probably unnecessary except in very acute cases. I am rather partial to the use of a diet of raw meat. Avoid excess of carbo-hydrates and sugars, and prescribe regular hours of feeding and nothing in between.

Now as to medicaments. Probably it is the beginning of therapeutic wisdom to clear one's mind of the idea that arsenic or any other drug administered internally acts as a specific. If internal remedies are to be employed they should be given for a definite purpose and in accordance with definite indications. How much is really known of the actions of arsenic? If its attributed actions are correct, it would appear to be a veritable panacea in our catalogue of diseases. Doubtless arsenic is of use in the more chronic forms of eczema, possibly by reason of its antiperiodic action possibly by reason of its being excreted in part by the skin. But in acute cases—where the skin is acutely inflamed, arsenic is probably actually detrimental in that it raises blood pressure and increases exudation. Rather in acute cases the administration of saline febrifuges, or the vinum anti-moniale to relieve the arterial tension and relieve the local inflammation. Where nervous symptoms are pronounced, appropriate sedatives may be administered, *e.g.*, opium, which soothes excitement, allays irritation, and induces sleep. Phenacetin also useful.

Local remedies are the most important. What appears to me to be a rational line of treatment in eczema is this :—To remove all crusts and scales with oil or a weak solution of Sodæ bicarb., then to (*a*) Destroy the bacteria ; (*b*) Protect the inflamed skin from invasion of such ; (*c*) Relieve irritation.

We are anxious not to aggravate the inflammatory process, so an unirritating microbicide agent is the best at first. A solution of Boracic acid seems suitable. Then an emollient may be applied in the form of a "cream." The following prescription is one of those advocated by Dr. Malcolm Morris, Consulting Skin Specialist to St. Mary's :—Zinc oxid : Lanolini : Ol. olivæ : Aquæ calcis.

This cream is distinctly emollient and cooling.

It will be seen that there is a certain proportion of water mixed with a fatty base : this facilitates evaporation. After the acute inflammation has subsided, probably there is no better dressing than a simple ointment containing sulphur. For instance Zinc Oxid : Sulph Sub : Creosot : Adipis lanæ : Adipis : Liq. Rosæ.

To the best of my belief there is no benefit accruing to the animal from the Liquor Rosæ ! Ichthyol is credited with being a very useful dressing in acute eczema. Unna recommended a varnish : Ichthyol : Starch : Albumen : Water.

"Friedberger and Fröhner recommend for excessively weeping eczema a 6 per cent. solution of watery or spirituous solution of silver nitrate. They have long used it with great success. After first cleansing the part they apply the dressing with a brush, when a slight dry eschar or slough is formed, beneath which healing rapidly occurs."

They have often used Arsenic with good effect in chronic eczema with good result ; usually as Fowler's solution. Personally, I generally use Donovan's solution, as dogs take it readily in their food, whereas they object to the Tinct. of Lavender in Fowler's solution. Druggists, however, make Fowler's up for us now by request *sine* the Tincture. For chronic eczema, dressings containing tar give me most satisfaction. I have tried chrysarobin, and other advocated dressings, but prefer ordinary Sulphur Ointment containing Ol. Picis.

It now remains for me to thank you for your kind attention and I trust a good discussion will follow.

Authorities quoted :—
Friedberger and Frohner (Veterinary Pathology).
Diseases of the Skin (Malcolm Morris).
Law's Veterinary Medicine.

VICTORIA VETERINARY BENEVOLENT FUND.

The quarterly meeting was held at 10 Red Lion Square, London, on Thursday, April 10th. Present :—Messrs. R. C. Trigger, H. A. MacCormack, S. Wharam, S. H. Slocock, S. Villar, J. Dunstan, G. A. Banham, and W. Shipley. In the absence of the President, Mr. R. C. Trigger presided.

The minutes of the previous meeting were accepted and passed. The quarterly report and statement of accounts by the Secretary and Treasurer were approved. Letters of apology for non-attendance were received, and letters of thanks from old recipients.

A report from Prof. O'Connor, Secretary of the Irish Committee, was received, and some suggestions therein were accepted. A case was referred to the Finance Committee.

The Treasurer submitted the balance sheet which was for nine months, from March to December, owing to the alteration of the ending of the financial year. It was proposed by Mr. MacCormack, and seconded by Mr. S. H. Slocock, the same duly signed by the auditors. This was adopted.

It was approved that all the grants to the old recipients be continued.

Proposed by Mr. Wharam, and seconded by Mr. Slocock, that a grant of 10/- per week be made to Mrs. T.

Proposed by Mr. Slocock, seconded by Mr. MacCormack, that a grant of 5/- per week be made to Mrs. T. until her son leaves school, when a fresh application should be made.

In the case of Miss W., Prof. Dunstan was asked to make further enquiries locally, and if satisfactory, a sum not exceeding £10 be granted, on the proposition of Mr. Villar, seconded by Mr. Slocock.

Other applications for help were received.

Quarterly Report.

In presenting my quarterly report, I regret to say I am most disappointed in the slow progress we are making.

There are so many members of the profession who should help and do not do so. I feel sure it is through the fact that the work of the Fund does not come to their knowledge, as I am aware that all our old subscribers are pleased to help, and that the more they know of the work we are doing the more pleased they are to be helpers. May I suggest that we, as veterinary surgeons, are often called upon to support outside charities ; we might easily ask our non-professional friends to support our charity. Several of my personal friends give me a subscription and express surprise that

FRACTURE IN UTERO.

Note by Mr. Samuel H. Power, Ennis.

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more do not help. I have 26 new helpers, but what can that be compared to the need of increasing our too small grant of not more than ten shillings a week to the widows with families, and the three fresh applications from poor women, and two others from veterinary surgeons in distress.

In my town the widow of a fisherman gets 12/- per week, and 2/6 per week for each child from a fund supported entirely by fishermen; men earning small money as compared with our members. I very much hope our members will endeavour to put our fund in a similar position or even better.

I have letters to submit to you from our recipients. In one, a very sad case, the orphan son of a veterinary surgeon has to be sent to South Africa suffering from tuberculosis; this is only possible owing to our grant.

In another the widow of a veterinary surgeon quite unable to work and suffering considerably after a serious operation for cancer of the breast. May we not try to help to lighten the sorrow of a lingering death?

Amongst our subscribers the majority appear to be Country practitioners. Why do notthe members of the profession in the big towns help? London is a disgrace as far as our fund is concerned, from a charitable point of view. I am quite aware there is not the frequent association of members of the profession in these big cities, but at the same time the successful men see how many go down in the flood of competition and the disaster of disease.

I have received a doctor's certificate in the case of Mrs. R., and in accordance with instructions have made a weekly grant of 10/-.

With the consent of the Finance Committee a sum of £5 was sent to Lady M'Fadyean to support a fund she was raising to ensure the retention of the son of a veterinary surgeon at a charitable school for a further year. We are indebted to Lady M'Fadyean for the interest she has taken in the case, and should congratulate her on the successful issue.

I have for your further consideration the application from Mrs. C. T. An application from Mrs. T. is before you; two members of the profession to whom the case is well known have sent me cheques anonymously, in order that I might be able to send 10/- per week until you are able to consider the application.

There are three cases under the consideration of the local Committee in Ireland. I still feel we should increase our grant to 10/- per week to Mrs. M., subject, of course, to the report from the Irish Committee.

I feel again that we should in all cases where the Council is satisfied that help is needed, decide that a sum of not less than 10/- per week be granted. I cannot appreciate how any widow of a veterinary surgeon should be expected to live on less, and if the poor woman has children we should endeavour to give her more.

The individual help of the members of the Council I greatly desire. They should be aware that my time is not the time of a slacker, and I have to devote a deal of time I can sorely spare to bring the fund into what I consider the position it should occupy.

At the recent meeting of the National Defence and Benevolent certain references were made to our fund. I can assure you it is my endeavour to act in perfect accord with that Society. As a matter of fact I am on the Council of both. The members of the profession should be aware that there is no discord, and further, that were it not for our special fund the resources of the National would not be able to cope with the great demands on their income. Some suggestions as to amalgamation have been made, at the present time this is impossible. Perhaps the time may come, I should welcome it, but whilst one-third of the income only of the National Defence and Benevolent can go to benevolence this seems impossible, and again, we are at present so much poorer than that society in accumulated funds that they surely would not take us into partnership. Anyhow I am particularly anxious that the members of the profession should know, that you as a Council, and that I as your working secretary are trying hard to make the object of the two societies as one, and one only, that is, "the alleviation of distress to old or young practitioners, and to the widows and children of our College pals who have been called away before being able to make proper provision."

Our income at present from subscribers approaches £250 per annum. Our expenditure exceeds £300. What can we do to improve our position?

You will note I feel sure with great pleasure Mr. P. J. Simpson is organising a theatrical entertainment for the benefit of the fund. You will be aware much time and trouble and expense must be incurred to produce this, it therefore behoves all who can to support Mr. Simpson's venture. May we get other similar efforts originated.

DONATIONS.

Wharam, Mrs. Leeds	£5	0	0
Stephenson, C., Newcastle	5	5	0

NEW SUBSCRIBERS.

Allman, J. D., Ealing		10	6
Hewlett, C. J. & Son, London	1	1	0
Auger, T. E., Wymondham		10	6
Fewings, A. B., Board of Agriculture		10	6
Rankin, K. P., "		10	6
Medlock, F. W. "		10	6
Yates, Jas.		10	6
Arnold, P. W., Gt. Yarmouth		10	6
Willows, Francis & Co., London		10	6
Turner, F. S., London	1	1	0
Young, J. B., Braintree	5	5	0
Pugh, D., Sevenoaks	1	1	0
Whicher, A., Bexhill		10	6
Weston, W. P. York		10	6
Buckingham, J., Harleston		10	6
Reeman, Wm. M., Bury St. Edmunds		10	6
Soulsby, J.. Cockermouth	1	1	0
Mackinder, J., Peterboro'		10	6
Eastern Counties V.M.S.	5	5	0
Holland, J., Athy		10	6
Oliver, E. W., Simla, India		10	6
Quinlan, D., Calcutta	1	0	0
Trigger, W.. Newcastle		10	6
Willett, F. W., Staines	1	0	0
Thornton, F. J., Dorchester	3	3	0
Wooldridge, Prof., R.V.C.		10	6

NATIONAL ASSOCIATION OF VETERINARY INSPECTORS.

A specially convened meeting was held on Wednesday, April 30, at the Holborn Restaurant, for the purpose of forming an Association, for the election of officers, and for the discussion of the proposed schedule of suggested charges under the Tuberculosis Order. There was a large gathering of veterinary inspectors from various parts of the country, and the chair was taken by Mr. Joseph Abson, of Sheffield.

The SECRETARY (Mr. Trevor Spencer) read the notice convening the meeting.

The CHAIRMAN said he had no doubt they had all carefully read the account given in *The Veterinary Record* of the previous meeting, and that being so, they would probably agree with him that it was unnecessary for the Secretary to read the minutes of that meeting.

It was accordingly proposed by Mr. Gooch, and seconded by Mr. Crowhurst, that the minutes of the previous meeting be taken as read. This was agreed

to, and the minutes were confirmed, and signed by the Chairman.

The SECRETARY then read a list of names of gentlemen from whom he had received letters of apology for non-attendance at the meeting. These included: Messrs. J. Forbes, Truro; J. B. Wright, Builth; F. Morton Wallis, Halstead; J. Dykes, Wellingborough; W. Graham, Minehead; W. Shipley, Yarmouth; J. W. Pritchard, Brighton; J. B. Young, Braintree; E. Dixson, Margate; and several others.

The Secretary also read the report of the Executive Committee, which recommended:—

(1) The formation of an Association to be styled "The National Association of Veterinary Inspectors."

(2) The membership be confined to Veterinary Inspectors of the Board of Agriculture and Fisheries under the Contagious Diseases (Animals) Acts, and Veterinary Inspectors holding appointments under the Public Health Authorities.

(3) That the Association be affiliated with the National Veterinary Medical Association, at an affiliation fee per member of one shilling.

(4) That the annual subscription should be five shillings per member, this amount to include cost of affiliation.

The Committee further recommend that the objects of the Association should be:—

To devise means by which all Orders dealing with the contagious diseases of animals may be carried out in a systematic and uniform manner by the veterinary officials concerned.

To place in the hands of members, by means of pamphlets and demonstrations, the most approved methods of diagnosis in connection with the diseases in which they are more particularly interested.

To support members in approaching Local Authorities, where such action may be considered expedient, with a view to securing for veterinary inspectors a more uniform scale of remuneration; and generally to safeguard the interests of members.

Mr. KING moved "That an Asssociation of Veterinary Inspectors representing the whole of the country be formed on the lines laid down by the Executive Committee." He would not reiterate the arguments in favour of the formation of the proposed Association. It was very important that their interests should be safeguarded in the present important crisis, and he was quite sure that a great deal of very useful information could be collected, and a great deal of good done, by such an Association. As he had remarked at the previous meeting, the Association now about to be formed would be in no way whatever antagonistic to any other Association or Society at present in existence. (Hear, hear). They wished to clash with none, but to work amicably with all.

Mr. WARTNABY (Burton-on-Trent) seconded the resolution, which was then put to the meeting and carried unanimously.

ELECTION OF OFFICERS.

Mr. BRITTLEBANK said that the first business before the Association now happily formed was naturally the election of a President, and it was with very great pleasure that he rose to propose their Chairman, Mr. Joseph Abson, as the first President of the Association. (Hear, hear).

Mr. DUNSTAN briefly seconded the resolution, which was carried unanimously.

Mr. BRITTLEBANK remarked that he was sure not only those present, but veterinary inspectors all over the country, would approve of their choice. Mr. Abson's past record was a guarantee that the Association would at least have a working President during the year of its inauguration. (Applause).

The CHAIRMAN, in thanking the Association for the honour conferred upon him, said he did not quite know how it had come about that he had been proposed as the first occupant of that very onerous position, but whatever the reason might be, he could only assure them that it would be his endeavour to promote in every way the welfare of the Association, and to carry out his duties as President to the best of his ability. He took that opportunity of alluding to an impression which appeared to obtain, he was glad to say only in one quarter so far as he knew, that the Association was being formed for militant purposes. That was not the case. The question of the fees they were to receive for the services they were about to render under the Tuberculosis Order was quite a secondary consideration, and as a matter of fact the originating meeting was called not to discuss the question of fees at all, but in order to hear the explanation of the Tuberculosis Order which Sir Stewart Stockman had most kindly volunteered to give. Afterwards the question of fees had undoubtedly come up for consideration, and in his opinion, this was quite natural and proper, and indeed inevitable. (Hear, hear). The proposed schedule of charges would, at a later stage, be laid before the meeting, and he hoped those charges would be considered reasonable, equitable, and just. If not they could of course be amended in any way the meeting thought desirable, and he hoped that they would, at all events, receive full and careful consideration before being finally adopted.

Vice-Presidents.—The SECRETARY announced that the following gentlemen had been recommended by the Executive Committee as Vice-Presidents of the Association: Messrs. P. G. Bond, Wm. Shipley, W. Woods, James Crowhurst, T. C. Toope, and Frank Garnett.

Mr. CAUDWELL proposed, and Mr. Hughes seconded, that the foregoing nominations be confirmed.

Mr. PARR inquired whether the Vice-Presidents were to be appointed permanently or annually.

The CHAIRMAN replied that the appointments would be for the year only. Upon the resolution being put to the meeting, it was carried unanimously.

Treasurer.—On the motion of Mr. Gold, seconded by Mr. Brookes (Warwick), Mr. Brittlebank was appointed Treasurer for the ensuing year.

Auditors.—Mr. TOOPE proposed that Messrs. B. De-Vine and W. S. Carless should act as auditors of the Association; this was duly seconded by Mr. Green, and carried unanimously.

Hon. Secretary. Mr. MALCOLM, in proposing that Mr. Trevor Spencer be appointed Hon. Secretary for the ensuing year, said the work Mr. Spencer had already done had proved him to be the right man in the right place—(hear, hear)—and he was sure they could not possibly have a better Secretary.

Mr. GRASBY seconded the resolution, remarking that to Mr. Trevor Spencer would undoubtedly belong the credit, in a very large measure, of the success which they all hoped and believed would be the result of these meetings.

The CHAIRMAN, supporting the resolution, said he was quite sure he would find Mr. Spencer an invaluable ally in carrying out his duties as President. He then put the motion, and declared it to be unanimously carried, the announcement being received with applause.

The HON. SECRETARY, in acknowledging his formal appointment, said he was afraid he could not possibly promise to undertake the duties for more than a year, but probably, after seeing the result of his first year of work, they would not wish to re-appoint him. (Laughter). But during the time he held office they might rely on him to do his very best. (Hear, hear). In his view, the duties they were called upon to undertake in connection with the Tuberculosis Order were the

most onerous and responsible they had ever been asked to perform. From inquiries he had made, he found that no less than nine separate reports, or certificates, would have to be filled in by the inspectors in respect of each notified animal, so that apart altogether from the actual work of inspection, the clerical work alone was going to be fairly heavy.

Council. The SECRETARY read a list of the names of gentlemen recommended by the Executive Committee to serve upon the Council of the Association, and remarked that in their selection due regard has been paid to proper geographical distribution. The list of names submitted was as follows: Messrs. John Malcolm, Birmingham; E. L. Dixson, Margate; Geo. Elphick, Newcastle-on-Tyne; Geo. King, Abingdon; H. J. Dawes, West Bromwich; J. A. Gold, Redditch; G. P. Male, Reading; H. Peele, Durham; G. H. Locke, Manchester; Hugh Begg, Hamilton, Lanark; E. Dunstan, Liskeard, Cornwall; George Wartnaby, Burton-on-Trent; R. D. Williams, Aberystwith; R. Hughes, Oswestry; G. H. Elder, Taunton; W. T. Brookes, Warwick; F. L. Gooch, Stamford; J. Clarkson, Garforth; W. H. Brooke, Handsworth; T. Duckworth, Ashbourne; R. C. Trigger, Newcastle-under-Lyme; D.G. Davies, Swansea; W. W. Grasby, Daventry; Alex. Munro, Altrincham; and R. Barron, Blandford.

Place of Meeting. Mr. GOOCH thought it desirable that it should now be decided as to where the Council should meet, and said that in order that the matter might be discussed, he would move that for the ensuing year, at any rate, its meetings should be held in London.

Mr. GRASBY seconded the resolution.

Mr. BRITTLEBANK thought the place of meeting might very well be left to the Council itself, and that its hands should not be tied.

Mr. GOOCH: Do you move that as an amendment to my resolution?

Mr. BRITTLEBANK: Yes.

Mr. HUGHES seconded the amendment, which, after some further discussion, was duly carried.

The CHAIRMAN said that at the last Committee meeting it had been proposed by Mr. Dawes, seconded by Mr. Dixson, and unanimously resolved, that the Hon. Secretary be reimbursed the costs he had incurred up-to-date so soon as the necessary funds were in the possession of the Hon. Treasurer. He now begged to move that that resolution of the Committee be confirmed by the meeting.

Mr. MALCOLM seconded the resolution, and it was carried unanimously.

SCALE OF FEES.

The SECRETARY said that at a meeting of the Executive Committee, held at the Grand Hotel, Birmingham, on Monday, April 21st, it had been resolved to recommend the following scale of suggested fees for veterinary inspectors' work in connection with the Tuberculosis Order of 1913:—

For first inspection of suspected bovine animal on receipt of notification by the police	10 6
For inspection of each animal after the first up to a maximum of three guineas	1 0
Charge for mileage, one way	1 0
For microscopical examination of milk or other discharge from any one suspected cow, to include repeated examinations if such should be considered necessary whilst the particular animal is under suspicion	10 6
For biological examination of suspected milk or other discharge; the fee actually paid to third party, not exceeding	1 1 0
For applying the Tuberculin Test, up to and including four animals	2 2 0
Beyond four animals, extra per animal	5 0
Mileage charge during Tuberculin Test, one journey only at 1/- per mile one way.	
Post-mortem examinations, each and mileage charge 1/- per mile one way.	10 6
Out-of-pocket expenses for slaughterman extra.	
Travelling Expenses:	
Cab fares; amount actually paid, vouchers to be produced.	
Rail fares. 2nd Class where available, in other cases 1st Class fare.	
For valuation of a condemned animal, no charge.	

The CHAIRMAN thought the best course would be to take the various items in the schedule seriatim, and not attempt to discuss them *en bloc*.

Referring to the first group of charges (for inspection on notification), Mr. Pennell thought 1/- per head after the first animal was ridiculously low. He considered it should be 2/6 per head.

The SECRETARY observed that though the charge might appear small when looked at in an isolated way, he thought that when they viewed the whole transaction, from the first inspection down to the post-mortem examination, the remuneration was as high as could reasonably be expected.

Mr. WARTNABY thought it would be very unwise to try and fix their charges at too high a rate. He was satisfied that the suggested charges were equitable and fair.

The CHAIRMAN desired to endorse Mr. Wartnaby's remarks. The proposed charges had been very fully considered by the Executive Committee, and if looked at carefully and thoughtfully, he thought they would be found to be not at all unfair charges from the point of view of the Veterinary Inspectors.

After some further discussion, Mr. Gooch proposed that the first group of charges be adopted by the meeting. This was seconded by Mr. Martin, and carried.

Mr. CROWHURST asked whether, with regard to the second item of charge in the suggested scale, viz., 10/6 for microscopical examination, he was right in understanding that, if called in to make an examination of an animal at a certain farm on a particular date, he could afterwards, on the same day, visit another farm, and repeat his charge

The CHAIRMAN: Certainly.

Mr. CROWHURST said that was in his opinion an important point in favour of the proposed charge, and he had much pleasure in moving its adoption.

Mr. ROUTLEDGE (Louth) seconded the motion, which was carried unanimously.

Mr. VILLAR—the charge of £1 1s. for biological examination of suspected milk—thought it doubtful whether scientific men—biologists—would be prepared to accept so low a fee as one guinea for such work.

Mr. BANHAM considered that the item should be omitted. They had no right to fix a charge for the work of other people.

Mr. PENNELL agreed. In some cases he thought it would be found that the biologist's fee would be as high as three guineas.

The CHAIRMAN thought there was ample evidence that there would be no difficulty in getting this work done for a guinea, and it had been the desire of the Executive Committee to keep down the charges as much as possible. Three guineas, to his mind, was a very exorbitant charge.

Mr. FOSTER said that in most cases they would be able to guarantee a certain number of samples for examination, and he was of opinion, that being so, that there would be no difficulty in getting the work done for a guinea.

The CHAIRMAN said that after all he did not think it was worth while fighting very hard about the guinea.

DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax. Outbreaks Confirm'd	Anthrax. Outbreaks Reported	Anthrax. Animals Confirm'd	Anthrax. Animals Reported	Foot-and-Mouth Disease. Outbreaks	Foot-and-Mouth Disease. Animals.	Glanders † (including Farcy) Outbreaks	Glanders † (including Farcy) Animals.	Parasitic Mange. Outbreaks	Parasitic Mange. Animals.	Sheep Scab. Outbreaks	Swine Fever. Outbreaks.	Swine Fever. Slaughtered.
GT. BRITAIN. Week ended May 3	8		9				3	10	57	113		58	793
Corresponding week in 1912	12		12				3	4	44	95	6	87	992
Corresponding week in 1911	18		23				5	7			1	53	623
Corresponding week in 1910		34		35			11	14			1	29	452
Total for 18 weeks, 1913	242		260				63	208	1293	2678	112	748	10123
Corresponding period in 1912	406		456				60	136	1815	4067	156	1193	15017
Corresponding period in 1911	360		421		1	18	76	221			293	808	8592
Corresponding period in 1910		556		680			135	326			302	410	3484

† Counties affected, animals attacked: Durham 2, London 8.

Board of Agriculture and Fisheries, May 6, 1913.

IRELAND. Week ended May 3	...	...	...	...	...	...	Outbreaks 1	9	10	14
Corresponding Week in 1912	...	...	...	...	...	...	3	3	3	102
Corresponding Week in 1911	1	1	...	...	...	...	...	3	2	8
Corresponding Week in 1910	...	...	...	...	...	...	3	9	...	122
Total for 18 weeks, 1913	...	...	...	...	...	...	80	254	58	302
Corresponding period in 1912	1	1	...	...	...	...	34	243	90	814
Corresponding period in 1911	4	4	...	...	1	2	37	227	47	907
Corresponding period in 1910	4	6	...	...	1	2	32	300	29	807

† These figures include animals slaughtered and found affected on post-mortem examination.

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, May 5, 1913

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

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If it was the wish of the meeting that, say, £2 2s. should be substituted, the Executive Committee would have no objection to substitute that figure. At the same time, let them get the work done for a guinea where possible.

Mr. PARR did not see why the charge should be put in the schedule at all. Why should not the Veterinary Inspector simply report to his authority, and let them engage the bacteriologist, and pay him what they liked?

The CHAIRMAN said that was just what they did not want. They wanted to keep the whole question of diagnosis in the hands of the Veterinary Inspector, the person responsible.

Mr. BRITTLEBANK considered there would not be the slightest difficulty in getting the work done for a guinea. People would rush after it.

Mr. HUGHES suggested that the matter should be left over for consideration by a future meeting.

Mr. MALCOLM said he could fully corroborate what Mr. Brittlebank had said.

The CHAIRMAN said it was for the meeting to decide whether the charge should be one guinea or two.

Mr. Martin proposed, and Mr. Green seconded, that the charge should stand at £1 1s., as proposed by the Executive Committee, and upon being put to the meeting, this was carried with only a few dissentients.

Some discussion also took place upon the charges in regard to the tuberculin test, and it was decided, on the motion of Mr. Crowhurst, seconded by Mr. Grasby, that the recommendation of the Executive Committee with regard to these charges be adopted.

Mr. HUGHES proposed that the Executive Committee's recommendation—a charge of 10/6 each for post-mortem examinations—be adopted, and Mr. Crowhurst seconded the motion, which was carried unanimously, without discussion. The recommendation with regard to travelling expenses was also adopted.

Mr. CROWHURST—in reference to the recommendation that there be no charge made for the valuation of a condemned animal—argued that it was most unfair that veterinary inspectors should be asked to perform such a duty (which he ventured to think was a very important one) without any remuneration at all.

Mr. BROOKES (Warwick) rather sympathised with the last speaker. He thought it would be better to leave the valuation to be done by an outside, independent valuer, rather than they should do it for nothing, and so get neither payment nor credit for their work.

Mr. RENFREW thought they would be making themselves look very small if they did this work for nothing.

Mr. WARTNABY said he gathered they were obliged to undertake the work, according to the Order.

The CHAIRMAN said that was the case. In arriving at a decision on this item, they must must not forget the remuneration they would already have received in respect of the condemned animal. On the whole, he did not think they could reasonably object to do this valuation without charge, and he suggested that they might very well let the item stand as read. He would put that proposition from the chair.

The Executive Committee's recommendation was accordingly adopted.

Next Meeting.—Mr. HUGHES proposed that the next meeting of the Association be held so as to coincide with the meeting of the National Veterinary Association. This was seconded by Mr. Toope, and agreed to.

Mr. PENNELL asked whether the scale of fees was intended to be presented and circulated among members.

Mr. WARTNABY asked whether there would be any objection to the scale of fees being sent round to the various county authorities, together with a tactfully worded letter.

Mr. ROBERTS (Chepstow) suggested as an alternative that each member of the Association should write to other veterinary inspectors in his locality for the purpose of discussing the proposed fees and submitting them to their respective authorities.

The CHAIRMAN thought this a very good idea.

Mr. GOLD wished to strongly support the suggestion of Mr. Roberts.

Mr. BANHAM said many inspectors were at present paid by time, and there might be difficulty in persuading authorities to change their established custom in this respect.

The SECRETARY thought it would be very unwise to adopt Mr. Wartnaby's suggestion, *i.e.*, to send the scale of proposed fees round to the various authorities. He was sure it would be resented in some quarters as an impertinence.

After further discussion, Mr. Wartnaby withdrew his proposition, and the meeting decided to adopt the suggestion of Mr. Roberts.

The CHAIRMAN, while expressing satisfaction at the decision of the meeting, said he could not help thinking it would be useful if each member of the Association had a copy of the fees before him, and he suggested that a copy should be posted to each member as soon as they could be printed. At the same time, it must not be forgotten that the proposed scale of fees would be published in *The Veterinary Record*.

The SECRETARY announced that there were present in the room representatives of two firms who had sent certain appliances for inspection by members. Doubtless many of those present would be interested in seeing these. (Hear, hear).

On the motion of Mr. Gooch, seconded by Mr. Gold, a hearty vote of thanks was passed to the Chairman, and the proceedings then terminated.

TREVOR F. SPENCER, Hon. Sec.

Harnessing the Bull.

Mr. Ray Moody, of Colnville, Maine, U.S.A, has, according to *Hoard's Dairyman*, solved in a practical way the problem of keeping his stock bull fit by means of exercise, and at the same time making him do useful farm work. Mr. Moody owns a large farm and has a good herd of dairy cattle and among them a three-year-old Jersey-Guernsey bull. He has also a five-year-old stallion, and this horse and bull have become the principal assets of the farm. Recently, when on a visit to the farm we saw Mr. Moody riding a hay tedder with the bull and stallion hitched to it. This team was doing work creditable to any double horse team, and without any question was doing it as well as any team could. The owner had made a harness especially for the bull. He put a collar and hames on him, and placed, instead of a bridle, the end of a double rein into the ring of the bull's nose. The bull was hitched on the off side, and the guiding rein, coming between the stallion and bull, was hitched into the other side of the ring. The stallion was yoked into the regular harness in the usual way. The bull is not only used on the tedder besides the stallion, but in ploughing, Mr. Moody yokes the bull on ahead of a span of horses. He claims that the bull is as strong as either of his horses, and can stand more work, and he has even hitched him between a pair of horses to haul a spring tooth harrow, having the team three abreast.

The owner claims that by working the bull, the animal is kept supple and the exercise that he receives makes him better for serving purposes. He is of the opinion that a bull, if used in this practical way, is no more dangerous than a stallion is, if kept in a barn without exercise, as most bulls are. Though the bull has never shown any signs of ugliness, yet because of the traditional idea that a bull is apt to show temper, he takes no chances, and therefore uses the staff in the bull's nose until he is harnessed.—*Farm and Home.*

ARMY VETERINARY SERVICE.

Extract from *London Gazette.*

WAR OFFICE, WHITEHALL, May 2.

REGULAR FORCES. ARMY VETERINARY CORPS.

Lieut. F. J. Sheedy resigns his commission. Dated May 3.

May 6.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

Lieut. J. F. Rankin to be Capt. Dated March 14.

OBITUARY

RICHARD ROBERTS, F.R.C.V.S., Tunbridge Wells. Graduated, New, Edin: 1876.

W. G. GIRVAN, M.R.C.V.S., Brookland, Middleton, Lancs. Lond: July, 1890.

Mr. Girvan's death occurred on May 2nd, at Belmont, Northumberland Street, Broughton, Salford, from Bright's disease, terminating in heart failure. Aged 37 years.

Mr. C. S. POOLEY, V.S., Hinxton, Great Chesterford, Essex, died on April 27th, from cerebral hæmorrhage, at the age of 70 years.

CORRESPONDENCE.

TUBERCULOSIS ORDER OF 1913.

Sir,

With regard to the charges proposed for veterinary inspectors under the new Tuberculosis Act, and published in your issue of the 3rd inst., may I be allowed to express a few opinions. I consider that, taking them all round, the fees are not high enough to be spontaneously proposed by a profession claiming itself to be of real importance to the State.

As one gentleman remarked at the meeting of inspectors, held on April 30th, the proposed fees were lower than those he was accustomed to receive in his private practice. He would thus find himself in an awkward position with his clients. He was the only one at that meeting who appeared to see the matter from my point of view. We have been clamouring for a long time to be given our fair share of State medical work, and now by means of this new Act we are provided with a splendid opportunity of coming forward and justifying our opinions in the eyes of the public. But it seems to me we have made a very poor start. I mean that we shall never be considered the advanced scientific profession which we rightly claim to be unless we rate our services at a higher standard.

One of the chief reasons which private practitioners raised at the meeting already referred to, was that if they did not quote moderate charges the authorities would ap-

point whole time men. But surely this is a short-sighted policy, it really amounts to "undercutting"—a procedure which I have always been brought up to believe is entirely against professional etiquette. My contention is that if a private practitioner lost an inspectorship in this way, he would nevertheless benefit indirectly by being able to keep up his charges to private clients, for he would be considered a member of an important profession—the whole time man would be advertising this for him.

In conclusion, why should we not claim first class railway fares? The Army veterinary officer travels first class, then why should we openly admit that we civilians are in a different status? Is our work not equally important? The status of the A.V.C. has been obtained by those who would not rest until the veterinary officer enjoyed all the privileges of other officers, they foresaw that the profession would never be properly recognised until this was brought about. By accomplishing this, an inestimable advantage was gained for the profession at large.

Then I humbly suggest that these are the lines upon which we should proceed with regard to this new Act in order that we may perform our duties more thoroughly, and with more self-respect.—Yours faithfully,

"One not Personally Affected.

THE MILK BILL AND TUBERCULOSIS ORDER.

Dear Sir,

I desire to call your attention, together with that of your readers, to the desire which evidently exists among agriculturists generally, that members of our profession shall be selected for those positions arising out of the new regulations, for which they alone are properly qualified, in order that we may—while yet there is time—do our part to prevent supplantation by the medical officer of health. Recently, at the Central Chamber of Agriculture, when the above subjects were under consideration, Mr. C. Middleton, of Cleveland, said, that he thought the Milk Bill a great improvement on its predecessors, *but in regard to inspection it was distinctly worse*, since it provided that inspection should be made by the medical officer of health, who might be accompanied by a veterinary surgeon. He contended that it should be the other way about, and that inspection should be by a veterinary surgeon. (Applause).

The Editor of *The Farmer and Stockbreeder* (14th inst.) writing under "Current Notes," says; "Mr. Burns's Milk and Dairies Bill has been partly modified, but the changes are perhaps not all for the better. *Farmers feel very sore about committing inspection to the medical officer.* Surely the veterinary surgeon has the only defensible claim to look after live stock! This is clearly *a blot on the measure.*" I think the public generally would endorse these opinions if allowed expression, but the decision will be given by Parliament, and I suggest that each one of us should write to the M.P. of his particular division calling attention to the point, and inviting his assistance in the prevention of an injustice.—Yours very truly,

Thos. A. Huband.

Kingsdown, Sevenoaks.

SOME PUZZLING QUESTIONS.

Sir,

I see it has been recently stated by Mr. McIntosh tha the veterinary profession receive between £20,000 and £30,000 yearly from insurance companies. I should like to know (1) how this estimate is arrived at? (2) if it be a correct estimate then how is the £4 to £5 per head calculated? (3) can a veterinary surgeon act satisfactorily to two clients, viz., as agent and examiner for an insurance company, and as veterinary surgeon to a regular client having his horse insured? Conflicting interests appear to occur in these two positions. (4) Is the tubercle bacillus really easy for any but an expert microscopist to demonstrate? Recent opinion would seem to declare that it is, but past teaching supported the view that it was not.

The opinions of some of your readers on these questions would be interesting,—Yours truly,

G. Mayall.

OXYGEN *V.* AIR IN MILK FEVER.

Sir,

Having read in last week's *Record* the note from "One Interested," I should like to state, in answer to his query that I have had several cases recently in which filtered air has been injected into the udder of cows suffering from milk fever, and have had them go down a second time from 24 hours to 6 days later, though no case has proved fatal.—Yours faithfully,

Oscar Stinson, M.R.C.V.S.

Marden, Kent.

ROUGH HINTS ON MICROSCOPY.

Sir,

Many microscopists with whom I come in contact have alluded to the messy troubles associated with oil immersion objectives in cedar oil. Perhaps a tip for cleaning may prove useful. Keep a small bottle of xylol or toluol, in the cork of which a small camel hair brush is fixed. In use drain the brush fairly well in the neck of the bottle, and sweep up the oil from the cover glass; wipe the brush on a clean rag and dip again into the bottle, give the glass another sweep with the brush. The same procedure applies to the O. G. as a clean handy immersion liquid. "Paraffinum Liquidum" is very pleasant to work with. It has a refractive index similar to cedar oil. Water immersion objectives are excellent for much bacteriological work, as with stained specimens one usually examines them in water, and the excess from the washing need not be blotted out. Moreover, probably not more than one in a thousand specimens will ever get to the stage of being mounted in balsam. But it is advisable to use measured cover slips and especially so when working dry objectives—these can be purchased—as it is not worth the expense investing in a measurer. About the most annoying thing when at work is a greasy slide or cover glass. The following hints may be useful, as they will insure slides and covers always ready for use Stew them gently in chromic acid solution till all the resin, grease, etc., are destroyed. Wash thoroughly in tap water, till no trace of yellow remains, then rinse in distilled water, drain and keep in rectified spirit or methyl alcohol, but *not* in ordinary methylated spirit. When a slip is wanted it can easily be dried off a few inches above a flame, or if many are required, the spirit is conveniently evaporated while they lie on a piece of nickel gauze. Of course the slides and slips must always be handled with forceps.—Yours faithfully,

R. M. Malloch, M.R.C.V.S.

Kirkby Stephen.

SOUTH AMERICA—CAUTION.

Dear Sir,

As I have recently received several letters from veterinary surgeons making enquiries as to prospects in this country and have not time to answer all in detail, perhaps you would be good enough to give publicity to the following in your valuable paper.

I strongly advise British veterinary surgeons to steer clear of this country unless they possess: (1) A fair amount of capital; (2) plenty of influential friends in the country; (3) and most specially a good knowledge of Spanish, *i.e.*, ability to converse and correspond in this language. Without the above qualifications a V.S., no matter how good a practitioner he may be, will stand a good chance of famishing here.

I write this after many years experience of the country. The letters which have recently appeared in *The Live Stock Journal* and other English papers, warning Britishers against coming to this country without capital, apply equally to veterinary surgeons as to others. I hope this may help some veterinary surgeons to avoid making the mistake I did in coming to this country.—Yours faithfully,

A. Marston, M.R.C.V.S.

Buenos Aires. April 16.

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